

## **Region 1 2015 “Volunteers Working with Invasives” Proposal**

**Refuge/complex name:** Mid-Columbia River NWR Complex

**Project title:** Mapping of Invasive Plants and Monitoring of Efficacy and Impacts in Support of Invasive Control and Rehabilitation Projects: Hanford NM, Columbia NWR

**Total amount requested:** 19,800

**Project Description (20 Points):** The proposed project will be to hire and train a volunteer invasives mapping and monitoring crew for two primary purposes. The first will be to locate and map populations of invasive plants as part of a larger station-sponsored program to describe and treat multiple invasive species on Complex refuges. This larger station-sponsored program involves the formation and support of a weed treatment “strike team.” The mapping efforts will be used to document and describe infestations and to reduce the strike team’s search times, increasing their ability to control targeted species at the best biological time. The second purpose will be to collect efficacy and impact information from past treatments, including past strike team efforts and other station-sponsored projects. Training of the volunteers in the operation of GPS equipment, weed identification, monitoring protocols, and data management will also develop a pool of trained individuals for future invasive plant management activities. GPS/GIS technologies and a customized data dictionary will be used to inventory and map the location of invasive species populations on refuge lands. The combination of the proposed project and the station-sponsored strike team will help document, monitor, and reduce the incidence of invasive species on refuge lands as a step in the recovery of native shrub-steppe, wetland, and riparian habitats, and will help to evaluate and inform refuge management actions.

**Friends Groups and other Volunteers (10 Points):** To support the proposed project, the MCRNWRC will enter into a cooperative agreement with the Friends of Mid-Columbia River Wildlife Refuges to recruit volunteers from local college and university biology departments to fill needed positions.

**Other Partners (10 Points):** The Refuges will partner with the Columbia Basin Chapter of the Native Plant Society and local county weed control boards for training of the volunteers.

**Criteria for Project Success (10 Points):** The initial goal of the 2015 invasives mapping crew will be to conduct initial surveys of 14,000 acres at Columbia NWR and Hanford Reach NM for 15 priority species of invasive plants. The second goal of the crew is to conduct aquatic vegetation sampling to monitor response to the 2013 and 2014 rotenone treatments of the Burbank Slough (McNary NWR) and McCormack Slough (Umatilla NWR). This aquatic sampling will also provide further information of Eurasian water-milfoil presence in refuge waters.

**Budget:** \$19,800

Stipend: \$1000/ month x 2.5 months x 6 person crew = \$15,000.00

Two Juno Trimble GPS handheld + software: \$2400 x 2= \$4,800.00

MCRNWRC will provide all costs associated with logistics support for the mapping and monitoring crew (bunkhouse, transportation, fuel, etc.)